

# **“Research Study of River Information Services on the US Inland Waterway Network**

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## **2<sup>ND</sup> INTERIM REPORT**

### **Issued by:**

**via donau – Oesterreichische Wasserstrassen-Gesellschaft mbH**

Donau-City-Strasse 1

A-1210 Wien

Tel.: +43 504321 1615

Fax.: +43 504321 1050

**Contact Person: Juergen Troegl ([juergen.troegl@via-donau.org](mailto:juergen.troegl@via-donau.org))**

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### **For the attention of:**

**The ERDC-IRO Cooperative Agreement  
Manager (CAM)**

**Dr. Steven A. Grant**

Engineer Research and Development Center

International Research Office (ERDC-IRO)

86-88 Blenheim Crescent

West Ruislip

Middlesex, HA4 7HL

United Kingdom

**U.S. Army International Technology Center –  
Atlantic (USAITC-A)**

**Fiscal Office**

**POC: Sandra Gordon**

86-88 Blenheim Crescent

West Ruislip

Middlesex, HA4 7HL

United Kingdom

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## 1 ABSTRACT

The first project period started with efforts to achieve a common knowledge level among the partners. Startup activities comprised the exchange and discussion of the project plan, the Lock Operations Management Application (LOMA) specifications, the River Information services (RIS) center concept via e-Mail and the extranet site. Major results have been achieved during a workshop in Washington DC in August where a review of major documents took place and a meeting with lock operators and the Port of Pittsburgh Commission have been held.

The second project period mainly focused on the further elaboration of the concept for the River Information Services (RIS) Center and the link to the US eNavigation strategy on the one and on the beta tests of the LOMA application on the other hand. To support these activities joint presentations and workshops at the COPRI conference of the US Association of Civil Engineering in Memphis TN and at the eNavigation conference held in Seattle WA have been held.

## 2 TECHNICAL STATUS

The work done in the second reporting period concentrated on the activities 1, 2 and 3 according to contract attachment 5, article 1. The progress to date on research milestones, as well as the identified challenges/problems is reported in relation to the proposed activities.

### 2.1 Activity 1, Development of a strategy for inland waterways, RIS and related technologies

The main action within the respective activity was the continuation of efforts on the eNavigation strategy of the United States. By the end of this reporting period, RIS are well embedded in the current version of the eNav strategy. Also joint efforts with the FILS/FINDE groups have been triggered in order to avoid double efforts and to reach harmonization of codes and standards for inland navigation locations and commodities. Nevertheless it has to be stated, that those harmonization efforts have just started and will need additional time and care in order to come to an agreed set of interchangeable codes.

Besides the overall cooperation including contributing to and reviewing of current versions of the eNav strategy, via donau has provided examples and procedures from the European standardization.

Activity 1 also included the active participation in common RIS presentations at the American Society of Civil Engineers (ASCE) Coastal, Ocean, Ports and Rivers Institute (COPRI) conference on November 13 and 14 in Memphis TN and the e-Navigation Conference on November 16 in Seattle WA.

### 2.2 Activity 2, Definition of the user requirement and sources of resistance to technology adoption

Main activities were the continuation of common discussion and clarification of LOMA user requirements. Besides technical questions regarding the charting technology of the LOMA plotter, special focus was again put on the question of interfacing between LOMA and the existing USACE Lock Performance Management System (LPMS) run by the National Data Center (NDC). After initial problems in finding a common agreement on the data interfaces between LOMA and LPMS, finally an approach for a first basic interface for data exchange has been agreed.

Since the LOMA 1.0 pilot system has been put in operation first user feedback has been collected and completed with technical inputs from USACE project management and via donau. Several points for operational improvement and use of sustainable technologies have been identified and will be integrated into the requirements for LOMA 2.0.

## 2.3 Activity 3, Cooperative development of a RIS/LOMA specification

In December 2010 the activities for the detailed specification of LOMA 2.0 started. Via donau has provided input on the structure of the requirement document and will continue to contribute to the completion of the document.

## 2.4 Status of collaborative activities

The following collaborative activities have been made during the reporting period:

- Participation in the eNavigation short course during the COPRI conference
  - Time: November 14, 2010
  - Location: Memphis TN
  - Participants
    - Mississippi State University
      - Dr. William McAnally
    - Stevens Institute of Technology
      - Dr. Thomas Wakeman
    - USACE
      - James E. Clausner (ill, replaced by Juergen Troegl)
    - via donau
      - Juergen Troegl
  - Purpose
    - Presentation of the current state of art regarding eNavigation (Wakeman)
    - Presentation of US eNavigation efforts (Troegl)
    - Presentation of European eNavigation efforts (Troegl)
- Participation in the eNavigation session during the COPRI conference
  - Time: November 15, 2010
  - Location: Memphis TN
  - Participants
    - USACE
      - Jeff Lillycrop
    - INGRAM barge
      - Mark Stevens
    - via donau
      - Juergen Troegl
  - Purpose
    - Presentation of current user activities (Stevens)
    - Presentation of US eNavigation efforts (Troegl)
    - Presentation of European eNavigation efforts (Troegl)
- Participation in the eNavigation conference

- Time: November 17, 2010
  - Location: Seattle WA
  - Participants
    - USACE
      - Jeff Lillycrop
      - Brian Tetreault
    - via donau
      - Juergen Troegl
  - Purpose
    - Introduction of RIS to the eNav community (Troegl)
- Working meeting
  - Time: November 18, 2010
  - Location: Seattle WA
  - Participants
    - USACE
      - Jeff Lillycrop
      - Brian Tetreault
    - via donau
      - Juergen Troegl
  - Purpose
    - Discussion of LOMA project status
    - Review of the LOMA 1.0 prototype
    - Discussion of US eNav strategy
    - Agreement on next steps
- Weekly telephone conferences
  - USACE
    - Brian Tetreault
  - via donau
    - Juergen Troegl
  - Purpose
    - Discussion of LOMA project status
    - Agreement of work to be done

### 3 BUSINESS STATUS

The following tables provide an overview of the resources spent to date in comparison to the numbers given in the Agreement.

Phase	Project Month	Amount spent	Amount planned	Deviation
1st Interim Report	4	19.210,54	30.677,00	-11.466,46
2nd Interim Report	7	23.682,15	46.954,00	-23.271,85
3rd Interim Report	10		22.677,00	
4th Interim Report	20		47.232,00	
Final Report	24		8.000,00	
<b>Total</b>		<b>42.892,69</b>	155.540,00	-34.738,31

current reporting period

Table 3-1: Resource overview

Phase	Project Month	Labor Costs	International Travel	Domestic Travel	Indirect Costs	Amount spent	Amount planned	Deviation
1st Interim Report	4	7.890,23	5.129,80	1.866,42	4.324,09	19.210,54	30.677,00	-11.466,46
2nd Interim Report	7	9.737,61	5.977,76	2.837,52	5.129,26	23.682,15	46.954,00	-23.271,85
3rd Interim Report	10						22.677,00	
4th Interim Report	20						47.232,00	
Final Report	24						8.000,00	
<b>Total</b>		17.627,85	11.107,55	4.703,94	9.453,35	<b>42.892,69</b>	155.540,00	-34.738,31

current reporting period

Table 3-2: Detailed resource overview

GENERAL COST CATEGORY DESCRIPTION	TOTAL PROJECT COST PLANNED	TOTAL PROJECT COST SPENT	PER CENT SPENT	PER CENT PROJECT TIME
Direct Costs				
Labor Costs	70.176,00	17.627,85	25,12	29,17
International Travel Costs	26.950,00	11.107,55	41,22	29,17
Domestic Travel Costs	19.790,00	4.703,94	23,77	29,17
Indirect Costs	38.624,00	9.453,35	24,48	29,17
<b>Total Costs</b>	155.540,00	<b>42.892,69</b>	27,58	29,17

Table 3-3: Deviation of resources

It can be seen, that actual costs are behind the intended payment schedule. Nevertheless the used resources are reflecting the adequate for the elapsed project time. It turns out that the efforts are spread more linear over the project time than initially estimated. It is expected that the current deviation from the plan will be compensated in the two last reporting periods.

The quite flight intensive meetings in Memphis and Seattle in November 2011 are responsible for the relatively high international travel costs.

From today's point of view no special adjustment measures are considered necessary.